1. IT TAKES TWO TO TANGO: A RELATIONAL APPROACH TO MONEY LAUNDERING

The role of off-shore countries in international money laundering schemes has long attracted the attention of policy makers. Virtually all initiatives aimed at combating money laundering, both at the domestic and international level, tackle the issue.[1] Policy makers are mainly concerned with two sources of costs stemming from money laundering. Firstly, the possibility of laundering proceeds of crime affects the incentive of a potential criminal. In a world where money of illicit origins cannot be laundered the possibility of linking the capital to the crime reduces the *ex ante* incentive of the criminal to commit the crime in the first place. At the margin, more crimes will be committed if money laundering is possible. From this perspective, combating money laundering is equal, in the aggregate, to combating predicate offences. Secondly, capitals that are laundered return to the legal financial sector generating serious negative effects: Competition is distorted; the allocative efficiency of the market is undermined.[2]

Policy makers concentrate their attention on the negative effects of money laundering and on the possibility that off-shore centers might facilitate the task of criminal organizations. Concerns are raised by regulation adopted in off-shore centers, that may greatly contribute to launder money of illicit origins. The main product offered by off-shore centers to potential money launderers are, for example, a strict banking secrecy regime or rules that prevent the identification of beneficial owners of accounts. Discussions concerning these issues, however, take often as a given the existence of some countries that offer financial services to organized crime. In other words, the supply of money laundering services is treated as an exogenous variable.

This paper takes a different perspective. We will focus on features of a given country that make it more likely to enter the market for money laundering services. With this regard, our approach will argue that tax havens are structurally different from other countries. More specifically, we will argue that:

1. the utility function of countries that favor money laundering is positively correlated to the existence of criminal activities abroad;
2. the utility function of such countries is not influenced by the negative effects of criminal activity, i.e., they do not bear the negative consequences of that criminal activity.

Our approach is consistent with a previous work[3], that empirically verify the following hypotheses, that reflect the above mentioned analytical postulates:

a. tax havens do not have significant internal resources to offer on international markets. The lack of such resources pushes them to generate income through a lax supervisory regime;
b. tax havens have features that make them less attractive for criminal organizations.

The empirical results are consistent with the hypotheses. More specifically, off-shore centers tend to be small, thus being less attractive to criminal organizations; they tend to be islands, which might make control against criminal infiltrations easier; they tend to rely on income generated by money laundering, even though they are not necessarily acting in circumstances of necessity.

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[1] E.g. BANCA D'ITALIA, (1994) at 21. The document provides "operational guidelines" for financial intermediaries, aimed at facilitating compliance with the duty to report suspicious transactions' reports. Paragraph 4.2 states that financial intermediaries should pay particular attention to transactions that involve parties based in an off-shore country.

[2] On the negative impact of money laundering on the financial system see FAZIO, (1997), BIANCHI, (1997), (1998), (1999) DONATO and MASCIANDARO, (1997). (1998)

[3] MASCIANDARO and CASTELLI (1998).

We share with the work of Masciandaro and Castelli the view that there may be features of a given country that will naturally push it towards the adoption of financial regulation that may in fact facilitate money laundering. We part company in that we take a relational approach, on the assumption that it takes two to tango: We treat regulation that can affect the ease with which money of dirty origins is laundered as a product. Within this framework, we focus on the relationship that is established between a given off-shore country and its customers, i.e. criminal organizations. We are less concerned with the main product offered by off-shore to potential launderers (i.e., for example, a strict banking regime) and more concerned with the features of the off-shore that help to support the exchange between off-shore centers and criminal organizations. These features may be of various nature. Particular attention will be paid, however, to the institutional environment, loosely defined.[4] We look for features in the legal system as well as for specific rules that help to sustain the relation that off-shore and criminal organizations establish, thus determining the ultimate success of some off-shore centers over others.

Looking at the determinants of success in the competition among off-shore countries, it is hoped, will help identify which countries are actively involved in money laundering. This might in turn allow to draw a line between off-shore centers that are merely aiming at offering better quality financial services and off-shore centers that aim at attracting capitals of illicit origin, thus imposing significant costs over other countries. Grasping the factors that determine the success of some countries in the race to the bottom might also prove useful for policy makers in devising the most appropriate countermeasures.

Our attention focuses on countries that try to attract proceeds of crime through the offer of financial services to criminal organizations abroad. We leave aside the broader question of the possible role of off-shore centers in generating and facilitating international financial crises.[5]

We take an evolutionist perspective.[6] Some factors may put a given country in an advantageous position over other countries. These factors, however, need not necessarily be the result of a conscious choice by the country, whatever "conscious" means when referred to a country. They need merely prove useful, in an *ex post* perspective, in the competition with other countries. The competitive advantage of a country might also be ascribed to the accidents of history, to geographical factors, or even to sheer chance. For example, the language spoken in the country might obviously play a role in the choice made by criminal organizations. An evolutionist approach implies that while we expect a great degree of functional convergence, different countries may choose different strategies to the same end. Solutions are likely to be diverse.

At the same time, we do not exclude the possibility of a "conscious" choice by a country.[7] With this regard, the paper makes a simplifying assumption. We often consider a single off-shore center as a unitary decision agent, a black box that behaves rationally in order to maximize profits through the offer of financial money laundering services. The assumption, albeit naïve, is coherent with the goal of the paper, that is to say, an evaluation of the dynamics of competition among off-shore centers. However, we will sometimes try to shed some light on the black box, in order to look at the possible role of interest groups within the off-shore center. Further research may try to write a thorough "public choice" history of the confrontation that we expect to take place in the political arena within each off-shore country.

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[4] For example, as defined in NORTH, (1990) institutions include both formal and explicit rules and less formal rules such as norms.

[5] The latter issue has obviously attracted the attention of policy makers. This interest has also been spurred by the ever increasing integration of financial markets, which has increased the threat to financial stability posed by off-shore centers. See FAZIO, (2000b) ERRICO and MUSALEM, (1999) FINANCIAL STABILITY FORUM. (2000)

[6] As defined in ALCHIAN, (1950) and BECKER. (1962)

[7] And indeed we shall see that some "pre-committing devices" may be put in place specifically and consciously in order to support the supply of money laundering services.

2. A COUNTERINTUITIVE STARTING POINT

We start from a simple question. Imagine two hypothetical countries:

1. Country A is characterized by the widespread presence of criminal organizations, that generate huge flows of capitals of illicit origins. Banks and non bank financial institutions are largely under the control of such organizations. Organized crime is capable of corrupting both public officials - including law enforcement officials - and legislators, thus being able to obtain virtually any regulation deemed necessary to support their criminal activities;
2. In country B, by contrast, organized crime and corruption are completely absent. Country B is a solid democracy, whose legislators actively serve the interest of their constituents.

We ask the reader to leave aside for a moment her personal knowledge of real world countries that offer money laundering services. Which of these countries is more likely to supply money laundering services in the international market?

Intuition would appear to point to country A. The possibility of offering money laundering services would imply several advantages for criminal organizations. First, they could diversify their criminal activities, thus generating further sources of income from the commissions charged to foreign criminal organizations. At the same time, by integrating vertically into the downstream money laundering market, criminal organizations could reduce the cost of the laundering of capitals they generated from other criminal activities.

Yet, if we turn the question on its head and instead ask anyone acquainted with the issues related to money laundering schemes to list real world countries that supply money laundering services, we expect the answer to be rather different. Countries usually associated with the offer of financial services to criminal organizations appear to fit more easily into the “B type” described above.

Take, for example, the list of “Non Cooperative Countries or Territories” published last June by the Financial Action Task Force on the Prevention of Money Laundering (Fatf).[8] It includes Bahamas, Cayman Islands, Cook Islands, Dominica, Israel, Lebanon, Liechtenstein, Marshall Islands, Nauru, Niue, Panama, Philippines, Russia, St. Kitts and Nevis, St. Vincent and the Grenadines.

The vast majority of these countries looks more like the “B type” described above.[9] The reverse argument appears to hold as countries that are renowned for the presence of criminal organizations do not seem to play a prominent role on the supply side of the international money laundering market. Our country is a good example. Organized crime is surely present in Italy, and yet Italy does not appear to play a great role as a supplier of criminal financial services. To be sure, capitals of illicit origin tend to return in Italy, but only after having been laundered in one of the many well known international washing machines.

Going back to the list, it includes some obvious exceptions, i.e. countries that are closer to the “A type” described above. However, these exceptions may be explained on different grounds, once we recognize the nature of the exercise conducted by the Fatf. We take the list as the only, if not the most reliable, proxy of countries that are involved in the international market for money laundering services. A fundamental caveat is however mandated. We are concerned with off-shore countries that attract money of illicit origins. With this respect, the list is likely to be over-inclusive. The Fatf list is neither a list of countries that offer money laundering services, nor a list of off-shore countries. Rather, it is a list of countries that do not cooperate in the global fight against money laundering. The perspective taken by the Fatf has several implications. The lack of

[8] FATF. (2000)

[9] Of course this observation leaves aside any evaluation of the different relative weight these countries have in the market.

cooperation, might depend on factors other than a precise attitude of the country towards money laundering. For example, the country might lack the necessary resources in technical, financial, and human capital necessary to actively and effectively cooperate at the international level. Second, and most importantly for our analysis, the Fatf has focused attention on *all* non cooperative countries. The list might thus include two very different types of countries: On the one hand, countries for which non cooperation is part of a wider strategy aimed at attracting foreign illegal capitals; (the ones with which we are concerned) on the other hand, countries for which non cooperation is more usefully thought of as a means through which the country aims at protecting domestic illegal capital from investigations undertaken abroad.

Furthermore, although we just depicted the extreme cases, there is the obvious possibility that non cooperation might be the result of a mixed set of factors, like inadequacies in the bureaucratic structure, strengthened by pressure from criminal organizations aimed at protecting their business. Consider Russia. Although we did not conduct any specific research on Russia,[10] it appears fair to say that the lack of cooperation is not rooted into a strategic decision not to cooperate, but is rather the result of a situation of huge institutional problems connected with the transition to a market economy. Moreover, organized crime in Russia, if anything, appears to be a buyer rather than a supplier of money laundering services in the international market, as some well known scandals appear to suggest.

3. A SUPPLY AND A DEMAND SCHEDULE FOR MONEY LAUNDERING REGULATION

As already noted, we treat regulation that can affect money laundering as a product, with a demand and supply schedule. But whose demand schedule is driving the system?

Assume that the policy maker in a given country has not yet decided the direction that it will impose on its financial regulation, with specific regard to money laundering. The policy maker may thus decide to implement a regulation that creates serious obstacles to money laundering, or it can decide to make the opposite choice, devising a regulation that facilitates money laundering.

Money laundering generates costs as well as benefits for the parties involved. The costs for society, as underscored above, depend on the circumstance that more predicate offences will be committed if money laundering is possible and on the possible negative impact that money laundering will have on the financial system. The benefits of money laundering accrue, first of all, to criminal organizations, that can employ the proceeds of crime avoiding the threat of being prosecuted for predicate offences. On the other side of the transaction, money laundering offers to the launderer the possibility to earn a commission in exchange for its services. Four different categories of actors potentially interested in the regulation can be identified: a) the policy maker; b) criminal organizations; c) those who bear the costs of money laundering; d) the financial community. Starting with the latter, it does not appear easy to predict which side will the financial community take. For the sake of simplicity, we can think that the utility function of financial intermediaries does not appear to be affected by whether profits stem from legal or illegal financial activities, thus probably making them disinterested in the choice taken by the policy maker. The interests of b) and c) are obviously incompatible, as the gains of the former depend on the loss of the latter; a) is in the middle, having to decide which demand schedule to follow.

Note that we are not assuming that b) and c) are necessarily based *outside* the country where the policy maker we are concerned with is based. This is not an assumption, but rather the consequence of our line of argument. As with all policy issues, as long as the costs and benefits of a decision fall within the boundaries of the area of influence of the policy maker, we expect to have an efficient decision. Policy makers in countries where crime is pervasive will tend to bear at least some of the costs associated with a decision to favor money laundering.

[10] Or, for what matters, on any other country. This is not an empirical paper, and the references to characteristics of countries included in the list should be taken as little more than anecdotical evidence.

This is the first explanation of the apparently paradoxical incongruence among intuition and real world experience with regard to the two hypothetical countries described above. Countries where organized crime is pervasive appear to play a minor role in the offer of financial services at the international level. This might be so because the widespread presence of organized crime in the country increases for the policy maker the costs of a regulation that favors money laundering.[11]

Citizens will bear the costs of the decision and will hold the policy maker responsible. Entering the international market for money laundering services has a greater potential for countries that are immune from criminal activities. Such countries will almost by definition be able to externalize the costs associated with the increase of predicate offences.[12] A negative correlation between crime rate in the country and the role played in the offer of money laundering services appears likely. At the same time, as Masciandaro and Castelli have argued,[13] states that have fewer resources are potentially less attractive to criminals and will therefore be less vulnerable to the threats posed by money laundering. Such countries will thus be more likely to offer financial services to organized crime.

As a result of this process, some countries which do not bear the costs associated with money laundering become predisposed to adopt a regulation that facilitates money laundering. The other side of the coin is that both criminal organizations and those who bear the costs stemming from money laundering will "naturally" tend to be situated in countries other than the one where the regulation is adopted.

We have thus limited our attention to policy makers that are based in countries other than the ones in which the other actors potentially interested in the regulation are based. From this starting point, the confrontation between those who benefit from money laundering and those who suffer from money laundering has only one possible result. It is simply a "win win" game for criminal organizations. Organized crime experiences huge asymmetrical organizational advantages over those who bear the costs of money laundering. A small and powerful group faces a large and dispersed group, thus making the outcome predictable.[14] Even assuming that organized crime 1) commits the predicate offences in a given country, 2) launders the proceeds abroad, and 3) then lets the capital flow back into the first country, the costs are spread throughout the society.

However, the costs can be spread even further. Predicate offences can thus be committed in the country where organized crime is based, while the capitals can be introduced, once laundered, into a different country. The overall costs of money laundering will therefore fall on an even larger community, spread over (at least) two countries, thus exacerbating the collective action problem faced by those who bear the costs of money laundering. A single citizen will bear an even smaller fraction of the costs, thus creating the scope for enormous free riding problems that prevent a reaction from the public.

To be sure, money laundering regulation could be opposed, and is indeed opposed, by the political authorities that represent the public interest. The dispersion of the costs, however, makes money laundering a low salience issue for the public, and consequently quite low on the political agenda. The man on the street simply does not feel the bite of money laundering, and political actors will act consequently.

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[11] We are here leaving aside the possibility of corruption or even mere lobbying by groups interested in having a regulation favorable to money laundering. Through corruption, organized crime might be able to urge the adoption of legislation that facilitates money laundering. We believe this possibility to be less important than it may appear at first glance. For reasons that are developed *infra* in paragraph 4, a corrupted state will find it difficult to make a credible commitment not to expropriate the assets of illicit origins.

[12] These countries will still be exposed to the other source of costs above identified, i.e. the distortion of the functioning of the financial market. This source of costs, however, can be controlled through "ring fencing" practices, on which see *infra*, in the this paragraph.

[13] MASCIANDARO and CASTELLI. (1998)

[14] See OLSON, (1965) for a classical exposition of the dynamics of collective action.

Not surprisingly, banking and finance supervisory authorities play a prominent role in the front line against money laundering. Their need to closely supervise the stability of the financial system makes them extremely concerned with the threats stemming from the involvement of financial intermediaries in money laundering schemes. The interests they represent suffer serious damages from money laundering. For supervisory authorities, money laundering represents a strategic problem, capable of undermining the stability and competitiveness of the financial system. This observation helps to explain why supervisory authorities, rather than political actors, take the lead of initiatives aimed at combating money laundering.

At the international level, for example, the 1988 "Basel Declaration of Principles"[15] predated initiatives taken by the political actors. The European Union Directive on Money Laundering,[16] for example, was issued only in 1991. The Italian case shows an even more striking example of this trend. Banca d'Italia adopted in 1993, in the absence of a specific provision in the text of the law, Operational Guidelines aimed at facilitating compliance with the suspicious transactions reporting duty by the intermediaries.[17] This initiative was grounded on the recognition of the strategic relevance of such duty and of the importance of a clear-cut set of rules for the intermediaries. Four years after Banca d'Italia had issued the Operational Guidelines, the legislative decree n. 153 of 1997 acknowledged the importance of the matter, expressly vesting in Banca d'Italia the power to issue instructions for the intermediaries. Again, political authorities followed the path shown by supervisory authorities.

Supervisory authorities share a common interest in fighting money laundering and will act consequently. Doubts can be raised, however, as to whether actions taken may directly affect the direction taken by financial regulation within each off-shore. It seems more likely that such actions will only indirectly affect the regulation implemented in off-shore countries. For example, internationally introduced limitations on the ability of intermediaries to transact with counterparts based in off-shore centers might, in the long run, result in the latter being crowded out. This might in turn generate, inside the off-shore, demand for less sympathetic regulation towards money laundering. Quite obviously, however, these effects may only occur in the long run. But before the long run comes, the supply side of money laundering regulation may well be driven by the demand of organized crime abroad. The policy maker may thus choose to introduce a regulation that makes money laundering easier, in order to attract capitals from abroad. Such services will generate commissions that are the pay-off to the policy maker.[18]

The problem posed by international money laundering schemes becomes one of asymmetric distribution of costs and benefits. The parties to the exchange have an obvious incentive to exacerbate such asymmetry, the ideal situation being for them one in which they share the benefits while the costs fall entirely elsewhere.

This is a more general problem of competition among jurisdictions, that reaches well beyond the scope of money laundering. Territorial entities have an incentive to let somebody else bear the costs of the policy they implement, as it is well known by those who write constitutions. Constitutions are likely to include rules that aim at reducing the ability of the different entities that compose the state to impose externalities on fellow communities. For example, section 127, par. 3, of the Italian Constitution might appear to serve such a purpose. S. 127 allows the central

[15] BASEL COMMITTEE ON BANKING SUPERVISION. (1988)

[16] Dir. 91/308/CEE.

[17] The initiative of Banca d'Italia was taken two years after the introduction of the suspicious transactions reporting regime by law n. 197 of 1991. See Banca d'Italia. (1994)

[18] More precisely, the policy maker is best understood in this context as an agent of interest groups inside the center, that will get the ultimate financial profits stemming from money laundering. The policy maker is thus rewarded only in an indirect way, through support from the interest groups.

Government to oppose laws enacted by a Region that are deemed to be "in contrast with the national interests or the interests of other Regions."[19]

The existence of rules that prevent the most blatant cases of imposition of externalities affects the incentive of states within a federal state or, more broadly speaking, of territorial entities within a non-federal state. These entities will try to contract around the default rule, devising mechanisms that impose externalities although in a more subtle way.

Taxes are the easiest means to the end of externalizing the costs of a given policy. A state may structure taxes that apparently fall in a non-discriminating way on both in- and out-of-state interests, while in practice affect in a much more significant way the latter. When Seychelles or Cuba impose an ecological tax on scuba diving they are most likely letting out-of-state interests fund the preservation of the environment in those countries.

With this regard, off-shore centers face a simple scenario. The lack of a superior authority frees the hands of off-shore countries, facilitating the task of keeping the costs of money laundering outside the center while retaining the benefits. We have pointed to two different sources of costs stemming from money laundering, the first associated with predicate offences, the second with the effects of money laundering on the functionality of the financial system. Having decided to strike a bargain with organized crime, the off-shore center faces the problem of avoiding the full burden of the costs associated with this activity. What would a regulation aimed at externalizing the two above mentioned voices of costs look like? Well, the answer is not difficult, because this type of regulation does indeed exist in some off-shore countries.

We have already seen that we expect to find, on the supply side, states that have a low crime rate. This feature helps them to externalize the costs associated with money laundering. But this is necessarily so only at the beginning of their involvement with money laundering. From then on, however, they experience the constant threat that contact with criminal organizations might result in crime spreading inside the country. To avoid this problem, a simple rule might suffice, a rule stating that all the advantages of a given regime are lost if the "firm" that benefits from the regime or its representatives commit a crime *inside* the off-shore center. Criminal organizations will thus need to trade the gains stemming from the financial regulation offered by the off-shore against those that could be derived from committing crimes inside the off-shore center. As long as the former exceed the latter, criminal organizations will refrain from searching expansion inside the off-shore center. Recall that as argued above, off-shores that emerge as offerors of criminal financial services are likely to lack resources that make them potentially interesting for criminal organizations. However, success in the competition with other off-shore will entail the growth of a rich financial sector. This natural development may alter the trade-off for criminal organizations, making the off-shore more attractive. Paradoxically, success may be counterproductive, in that it may result in increased pressure from organized crime to take control of the off-shore's financial sector.

Aware of this threat, off-shores are expected to put in place defenses aimed at protecting their financial sector. Protection against the increase in predicate offences emerges naturally as a result of competitive pressure that will select off-shores that are less attractive for criminal organizations. By contrast, protection against the costs of money laundering on the financial market requires that specific action be taken. Off-shore centers will try to minimize the effects of money laundering on their financial system. This result may be achieved through instruments which can be grouped under the label of "ring fencing practices." Off-shore centers might thus try to build a Chinese wall that insulates its financial system from the effects of involvement in money laundering schemes. For example, a regime favorable to money laundering might explicitly or implicitly

[19] See also the widespread use that the United States' Supreme Court has done of the "dormant commerce clause", in the Constitution, in order to limit the ability of the states to impose externalities over other states. Within the European Union, the "non discrimination" principle controls the externalities generated by member states.

exclude residents from taking advantage of its benefits. Conversely, "firms" which benefit from a given regime may be explicitly or implicitly prohibited from operating in the domestic market.[20] Both of these provisions would ensure the off-shore center that criminal organizations that aim at benefiting from the regime do not "reside" in the off-shore center.

A similar goal is served by multi-tiered licensing systems. Under such a system, an off-shore center offers two rather different licenses to financial intermediaries, a "restricted" and an "unrestricted" license. A typical multi-tiered regime states that restricted licensees may not engage in transactions with residents inside the off-shore center. They may not collect deposits or even make certain investments. Similar restrictions may also apply to the ability of restricted licensees to solicit funds from the general public.

The *raison d'être* of rules of the type described above is easily perceived. They aim at generating externalities, or more precisely, at avoiding the internalization of costs associated with money laundering.

4. INTERNATIONAL FINANCIAL REGULATION AND OFF-SHORE CENTRES

In the above paragraph we stressed that the meeting between the demand for money laundering expressed by organized crime and the supply of laundering services offered by an offshore country makes the objective function of the latter quite special.

The specific nature of this objective function must be considered when analyzing how best to design international regulations against money laundering, which is none other than the endogenous final result of strategic interaction between the club of the "virtuous" countries—virtuous in the sense of sensitivity or propensity to combat laundering—and the individual offshore countries. We shall analyze this problem area by using simple game theory formulations.

Let us assume initially that the game structure involves two players: the club of virtuous countries (A) and a generic country inclined to launder money (B). The analysis leads us to establish under which conditions the first player can ensure the collaboration of the second.

In this initial formulation, we use the simplest possible structure, a matrix representation. Let us bear in mind that this formulation implies a game in which the players enjoy perfect information, i.e. each is aware of the actions of the other.

The club can choose between two moves: "seek collaboration" (SC) or "not seek collaboration" (NSC). In the first case, it promises the laundering-inclined country recompense equal to T if the country undertakes to refrain from conduct damaging to the members of the club. If, on the other hand, it chooses the move "not seek collaboration" (NSC), it promises nothing and passively endures the actions of the laundering country.

Country (B), for its part, can choose between "favor laundering" (F) and "not favor laundering" (NF). In the first case it obtains a benefit equal to R, while in the second it must sustain costs and its *payoff* is equal to $-C$. In the case of NF, however, it can hope, if A has chosen SC, to obtain a subsidy of T.

The conduct of B generates the following consequences for A: if B conducts itself virtuously, A enjoys a greater level of integrity in the international financial system, and therefore obtains a *payoff* equal to I. In the opposite case, this integrity declines and A receives NI.

[20] The example of "ring fencing" in the text is derived from OECD, (1998) at 27.

Summarizing the *payoffs* in a matrix (which shows the *payoffs* of A first and then those of B)

	B chooses NF	B chooses F
A chooses SC	I – T ; T – C	NI ; R
A chooses NSC	I ; – C	NI ; R

Now, for B "F" is a winning strategy (i.e. better whatever A's decision is), unless

$R < T - C$

that is

$T > R + C$ ①

i.e. the amount of the transfer must cover both the costs sustained and the benefits lost through non-cooperative conduct.

If this constraint is not satisfied, the only possible equilibrium is (NSC, F), because the cooperative solution is never profitable for B.

In addition to this constraint, the transfer must also satisfy the following:

$I - T > NI$

hence

$T < I - NI$ ②

the transfer must be less costly than the benefits derived from it. The club, in fact, absorbs the transfer costs only if this does not place it in a worse situation than the case where B chooses "F". If this were not the case, "NSC" would become the winning strategy, nipping the possibility of cooperation in the bud.

Conditions ① and ② are sufficient for the creation of an alternative equilibrium equal to (SC, NF). We ask ourselves, however, whether they should also be regarded as realistic. We noted earlier that the benefits country B enjoys by maintaining non-virtuous conduct are likely to be inferior to the benefits A would obtain from B's collaboration. This conclusion is sustained by the fact that the evaluation must assign different weights to the two factors (often the relative dimensions of the two contracting parties in question are different). In spite of this consideration, condition ① seems fairly costly, so that the conduct of B must be completely "repaid" by A. Let us now see how the situation can be modified by requiring that the transfer T function as a simple incentive.

We assume that A, by choosing "SC", not only promises incentives but can also threaten to inflict a certain damage on B if its conduct is not virtuous. Let us further assume that this **sanction**, amounting to S, entails no cost for A (an *embargo*, for example, restrictions on trade relations, etc.: for the single country affected this damage is often considerable, while for the other

countries the losses are generally limited or nil).

The situation is altered as follows:

	B chooses NF	B chooses F
A chooses SC	I – T ; T – C	NI ; R – S
A chooses NSC	I ; – C	NI ; R

the *payoff* of B in the case (F; SC) is diminished, and "F" is no longer the winning strategy in any case. In fact, for

$R - S < C$

that is

$S > C + R$

collaboration becomes the winning strategy for B. We doubt, however, that this system can be used exclusively. Such measures, for one thing, would be extremely harsh and unacceptable in political-diplomatic terms. If the punitive approach is combined with incentives, however, the new effectiveness constraint for transfer *T* is:

$R - S < T - C$

that is

$T > R + C - S$

which suggests an incentive too costly for A: in fact, it must exceed the cost of the cooperative conduct of B and the earnings lost because is desists from favoring laundering, but it corrects this amount for the presence of a threat. The approach that links the sanction with an incentive is not only more efficient but is only costly to a point.

The result therefore demonstrates that cooperation is possible only if suitably modeled incentive systems are employed, responding both to the needs of the club and the needs and peculiarities of the offshore countries inclined toward money laundering. An active approach is certainly a necessary condition for achieving the result, as a watch-and-wait attitude or a mere appeal to B's sense of morality would possibly fail.

On the other hand, the validity of the assumption clashes with the harshness of a reality that is much less schematic, characterized particularly by **information asymmetries** and **non-simultaneity of moves.**

The second approach we are proposing is a simple sequential game in which a third player, Nature, is present. Let us recall that in game theory Nature is a player characterized by an aleatory strategy: its moves are generated randomly according to an aleatory variable with known parameters. It represents the imponderable element, predictable only as an average, which can

condition how the player plays the game.

The sequential nature of the game and the aleatory element permit us to investigate the real possibility of obtaining the preceding results even when information is asymmetrical.

The first player to move is the club, which proposes to country B to collaborate in the war against money laundering. Country B has two possibilities: it can refuse or accept. If it refuses, it suffer a sanction equal to *S* but produces no effort to control laundering. If it accepts, it must make an effort but can choose between two levels of effort: high or low. In exchange, it receives a transfer equal to *T*. Let us say, therefore, that the level of effort expended by B (computing both the additional costs sustained and the benefits lost through virtuous conduct) can be equal to:

- zero, in the case where it rejects the proposal and does not collaborate;
- E_l , in the case where it chooses a low level of effort;
- E_h , in the case where it chooses a high level of effort.

The club, however, has no way to precisely verify whether B, after accepting the proposal of collaboration, is actually making an effort. Admission to the benefits of the club will therefore be subject to results of specific audits on the effort expended, whose outcome is aleatory and not totally controllable by either of the two players. This is where Nature comes into play, generating two possible outcomes for the audits:

- a low level of effort by country B with probability p;
- an adequate level of effort by country B with probability $1-p$.

In the first case, the transfer is revoked, but expulsion from the club permits B to choose a zero level of effort. In the second case, the transfer is confirmed but country B must commit itself in accordance with the level chosen. Let us also admit that the probability of an inadequate level of effort being detected is inversely related to the effort expended:

$$p = p(E_i) \quad \text{with } i=a,b$$

$$p(E_h) < p(E_l)$$

Hereinafter, we shall assume that

$$p(E_i) = 1 - E_i$$

For country B the possible results are:

- $-S$ (if its refuses to collaborate or if an insufficient level of effort is discovered);
- $T - E_l$ (if it chooses a low level of effort and passes the audits);
- $T - E_h$ (if it chooses a high level of effort and passes the audits).

Let us also admit the simplest possible utility function; in the three cases listed above, respectively,

$$V_B = \begin{cases} -S \\ T - E_l \\ T - E_h \end{cases}$$

The assumption of first-degree homogeneity, apparently innocuous, except for the degree of realism, generates significant implications regarding aversion to risk (found to be nil; B is

risk-neutral). The club assesses the level of effort with a function U_A; $U_A' > 0$, and

$$U_A(E_h) > U_A(E_l) > U_A(0)$$

For A three results are possible:

- $U_A(0)$ if B refuses or if an insufficient level of effort is detected;
- $U_A(E_l) - T$ if B passes the audits and chooses a low level of effort;
- $U_A(E_h) - T$ if B passes the audits and chooses a high level of effort.

For greater clarity, let us summarize the results in the tree diagram shown in the following figure (the pairs of *payoff* show first those of A then those of B).

Let us now seek to understand what characteristics the promised transfers and the threatened sanctions should have to induce B to accept the cooperative solution and the higher level of effort.

First of all, B must be convinced to choose the lower portion of the tree, i.e. it must agree to collaborate. Being risk-neutral, it maximizes the expected value of its *payoff* (in risk-neutral individuals, maximization of the expected value maximizes the expected utility). We shall therefore ask:

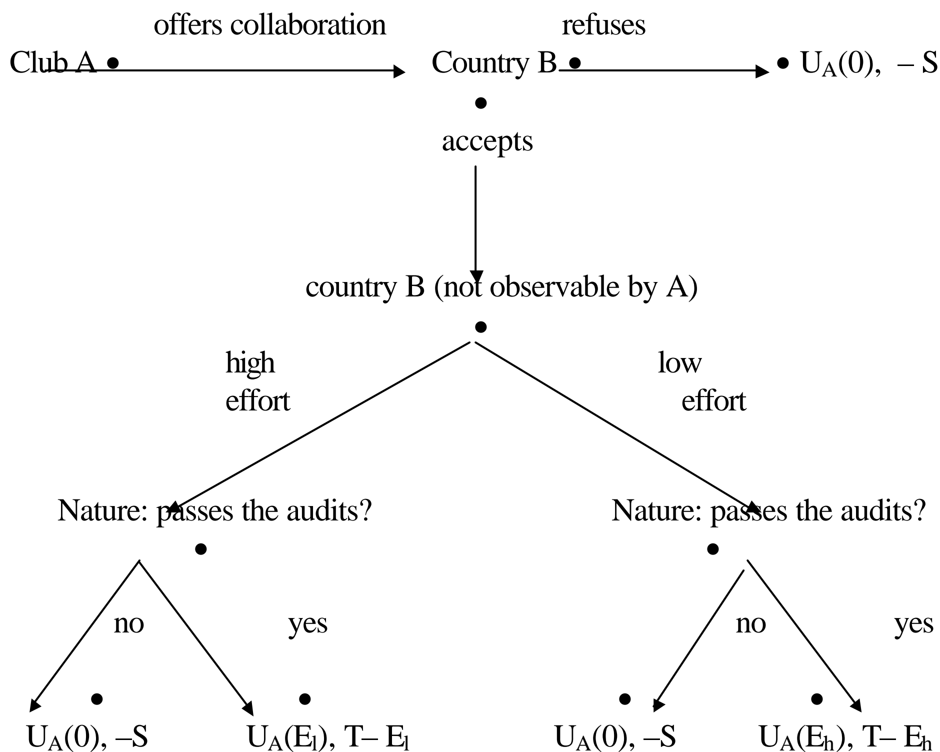

Figure 3.1

that the expected value in case of sanctions be lower than the expected value in the situation of collaboration:

$-S < -S \cdot p + (T - E_i) \cdot (1 - p)$

that is:

$T - E_i > -S$ ③ (condition of participation)

the extent of the sanction must produce a situation of utility lower than that in which B selects virtuous conduct and passes the audits. We can also note that the expression can be transformed into:

$T - (-S) > E_i$

Reflected again in other terms, the expression tells us that for the *agent* the monetary difference between the incentive and the sanction must exceed the cost of the effort.

Once collaboration is assured, the system of incentives and sanctions must also ensure a high level of effort. For this we shall ask that the expected utility for a conduct that chooses E_l be lower than that for E_a . Recalling again that in our case utility and expected value are equal, we require that the following inequality occur

$-S \cdot p(E_l) + (T - E_l) \cdot [1 - p(E_l)] < (-S) \cdot p(E_h) + (T - E_h) \cdot [1 - p(E_h)]$

which can be rearranged to obtain the condition

$(T + S)\,[p(E_l) - p(E_h)] > E_a\,[1 - p(E_h)] - E_l\,[1 - p(E_l)]$ ④
(condition of efficiency)

The left-hand member contains two factors: the first must be read, as we previously did, as

$T - (-S)$

i.e. the difference, in monetary terms, that is generated by passing from the condition in which B is excluded from the benefits and is subject to sanctions to the condition in which it obtains admission to the club.

This change is corrected by the second factor, which indicates the difference in probability of exclusion in the case where B selects a low level of effort versus the case where it selects a high level of effort.

The second member contains the difference of effort expected from the case in which the choice is high effort versus the case of low effort. This difference is expected, since the two levels of effort are corrected for the probability that this effort is actually required: and this does not occur in any case, but only with a probability equivalent to $1 - E_i$.

Thus condition ④ requires that the change in expected effort, for one following a virtuous conduct, be more than exceeded by the expected change in the recompense (intended as both greater transfers and lesser sanctions). In other words, the virtuous country must perceive that, beyond the veil of information asymmetries, ***its conduct generates tangible effects on the value of its payoff***.

The structure of the incentives and the sanctions must reflect as nearly as possible the actions of the *agent*, who may notice a ***correlation between the incentives and his conduct***.

Club A is not informed of B's choices regarding the level of effort. The offer of collaboration must therefore consider the possibility that B will select E_l. The amount of the transfer must be limited to prevent A from finding itself in a worse situation, in the case of collaboration with little effort, than it would have been in if B had not accepted:

$$U_A(0) \cdot p + [U_A(E_l) - T] \cdot (1 - p) > U_A(0)$$

hence we find:

$T < U_A(E_l) - U_A(0)$ ⑤ (condition of credibility)

the transfer cannot exceed the increase in utility obtained from the situation of zero effort to that of low effort.

On the other hand, if the transfer satisfies condition ⑤, the application of the sanction is no longer credible: it damages B but absolves it from any effort to collaborate, erasing the utility of A from $U_A(E_l) - T$ to $U_A(0)$, a change that ⑤ shows to be negative.

The threat is no longer credible because, if the opportunity presents itself, A has no real intention of applying it. In the more precise terms of game theory, the application of the sanction is not a subgame equilibrium given the occurrence of an outcome of the audits that reveals insufficient effort.

Country B is aware of the structure of the game and therefore the *payoff*. Knowing that the sanction is not credible, i.e. will never be applied, it can now decide between the two (non-aleatory!) alternatives $(T - E_l)$ and $(T - E_h)$ and clearly opts for the former.

At this point, Club A is assured the cooperation of B but has no hope of obtaining greater effort from it. The solution to these problems of fragility in the cooperative equilibrium, in game theory, usually lies—as stressed earlier—in two alternative directions:

- **the possibility of "tying its own hands"**: the club finds a system for constraining itself at the start of the game to the declared strategy of the adversary. In the relationships between individuals or companies, they usually resort to signing binding contracts. In our context, we might think of some form of treaty or recourse to a central authority, empowered to manage the club, shielded from the influences of the member states (and thus their temptation to deviate from the established strategy). But is the club willing to have its hands tied and, consequently, to accept the risks associated with the random nature of the audits?

games repeated: let us imagine that the game is repeated more than once (or infinite times) and that the sanction is applied only for the duration of one of the individual games. This application, through less than preferable in the first game, makes the threat credible for the subsequent repetitions and the damage generated by the first application is then recovered by the greater well-being it provides in future periods. B, in fact, is burned by the experience.

8. WINNER TAKE NOTHING: A MIXED INCENTIVE STRUCTURE FOR OFF-SHORE CENTERS

On a battlefield where reputation is one of the main weapons, policy makers engaged in the fight against international money laundering schemes should be very cautious in taking initiatives that may affect the reputation of the actors involved.

Contrary to a diffused wisdom, we argue that the adoption of a pure "name and shame" approach may even prove counterproductive. Tampering with reputational mechanisms might, at the same time, not only miss the target but also reach the wrong target. First, there is a high risk of false negatives, i.e. of including in a hypothetical list of countries that supply money laundering services countries that are merely engaged in the offer of financial services of superior quality. The costs of such an error appear great. To put it with the Financial Stability Forum, "not all [Off-shore centers] are the same. Some are well supervised and prepared to share information with other centres, and co-operate with international initiatives to improve supervisory practices. But the Survey carried out by the [Financial Stability Forum] indicated that there are serious concerns by onshore supervisors about the quality of supervision in, and degree of co-operation provided by, some [Off-shore centers]."[21]

Reputation is the basic tool of the trade also for countries that are not involved in money laundering schemes but are merely aiming at attracting capitals from abroad thorough the offer of superior quality financial services. From this perspective, a mistake by the international community that includes the wrong country in the list might cause serious distortions in the competition among jurisdictions. These countries, like victims of friendly fire, will find their reputation in the financial community seriously hampered, to the detriment of their role in the market. In the long run, such types of mistake appear also capable of curbing innovation in the financial sector. Regulatory arbitrage is a powerful force in driving innovation, and the international community should recognize that tinkering with the reputation of the actors involved is a dangerous game.

But even assuming that the international community is capable of effectively singling out off-shores that are indeed involved in money laundering schemes, a cautious approach is still deemed necessary. When the international community points the finger at a given country as a leading supplier of money laundering financial services, it may also be certifying, to the benefit of the country itself, that that country is indeed specialized in that business. The signaling effect embedded in the "name and shame approach" should not be underestimated. The main difficulty for an off-shore is solving credibly the commitment problem: Then, what's best for the off-shore than having the international community, not exactly its closest friends, solving that problem with a public statement? Listing should also be regarded as a sort of third party bonding, which is likely to generate two intertwined effects. First, it is capable of cementing the commitment by the off-shore. Secondly, naming increases the transaction specific character of investments in reputation. The inclusion in a list increases the value of the (sunk) investments in reputation. A state that is engaged in money laundering and that finds itself blacklisted will find it even more difficult to switch course and decide to exit the market, thus being encouraged to compete aggressively in the market. It is like having somebody else burning the ships behind the *Conquistadores*. The final result does not change much. They still need to move forward.

This is not to say that the international community should not endeavor in listing countries that are involved in the market for money laundering services. Quite to the contrary; what this paper argues, is that a *per se* "name and shame" approach, separated from other initiatives, equals to a third party seal on the reputation of off-shore centers. Names should be named, but only if blacklisting goes hand in hand with other measures that are capable of outweighing the positive effects experienced by the off-shore center as a result of the inclusion in the list.

[21] FINANCIAL STABILITY FORUM, (2000) Executive Summary, at 2.

Appropriate countermeasures should be grounded on the premise that even the most efficient off-shore center will still need, in a globalized world, to be integrated in world financial markets. This implies that no matter how many layers of transactions cover the predicate offence, criminal organizations will still need to place that money within the lawful financial sector. This step is necessary, at a minimum, in order to exploit in lawful uses the capitals, once they have been laundered. Money laundering is by definition instrumental to a later use.

With this regard, it should be noted that there is a fundamental feature of the initiative taken by the Fatf that appears to be pivotal for its success. The Fatf has not limited its initiative to a mere recognition of "non cooperative countries and territories." Fatf member states have also applied "Recommendation 21"[22] to the countries included in the list. "Recommendation 21" requires a higher scrutiny by financial intermediaries in evaluating the possible suspect nature of transactions with counterparts, including legal persons, based in a country listed as non-cooperative. As a result of the Fatf initiative, many countries included in the list have already taken initiatives aimed at overcoming the serious deficiencies observed by the Fatf.[23] These initiatives need to be evaluated in the medium to the long run, because, for example, some of the enacted laws will need secondary regulations to be put in place to become effective, or, more generally, the initiatives taken at the legislative level will need to be followed by concrete actions. However, it can be argued that the threat of being crowded out by the international community has played a great role in spurring the adoption of the above mentioned initiatives.

Competition among jurisdictions is a powerful and positive force. It drives innovation; success rewards policy makers that do not wait and see but rather take the lead and devise efficient policies: Within this framework, regulation is merely one of the many dimensions along which jurisdictions compete.[24] Indeed, competition among jurisdictions is sometimes even stimulated by policy makers. The possibility of choosing among different menus of rules is key to success of multijurisdictional entities, like federal states.

There are, however, instances in which countries engage in race to the bottom. This risk is especially high in settings where jurisdictions compete in the absence of a superior umpire that sets the rules of the game, in order limit their ability to externalize the costs of their actions. This is true also of off-shore countries.

As Masciandaro and Castelli have observed, a sort of "Dual regulation" hypothesis appears to hold.[25] The spread in the quality of regulations concerning money laundering gets larger, through a process in which the good gets better and the bad gets worse. At first glance this result might entail some positive perspectives, in that at least identification of the "bad guys" becomes easier. In fact, this is only apparently so. Off-shore centers that aim at attracting capital of illicit origins need their reputation to be known within the criminal world. Outside that world, however, off-shore centers have an obvious incentive not to be recognized as supplier of financial services to criminals, as this might lead to countermeasures being taken by the international community. The most egregious cases of pathological behavior by off-shore centers will pose less serious problems, as they will be easily detected. Problems start when it comes to off-shores that while offering financial services to criminal customers, try to mimic the behavior of off-shores that are not involved in money laundering schemes. The distinction between an off-shore that aims at attracting capitals through the offer of better services and one which aims at the same goal through the offer of money laundering services is difficult enough to draw in theory; it may completely blur in practice.

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[22] See Fatf, (1990). (2000)

[23] See Fatf press communiqué of October 5th, 2000.

[24] On the ever increasing importance of competition among jurisdictions see FAZIO. (2000a)

[25] MASCIANDARO and CASTELLI. (1998)

This problem seems connected with the observation that competition among off-shore centers may show an interesting peculiarity. Generally speaking, emerging as the absolute winner in competition entails a significant success. The resulting monopolist will enjoy supracompetitive profits. This is also true of most instances of competition among jurisdictions. Delaware, for example, detains a consolidated leadership in the market for corporate charters. From this position it derives significant benefits. Competition in the market for money laundering financial services seems to be rather different. The hypothetical off-shore center that emerges as the only supplier in that market may suffer serious consequences for its success. In the very short run, it can enjoy monopoly profits from this situation. Alas for such country, however, when one is the supplier of criminal financial services, countermeasures can be rather easily devised. For example, a sort of "reverse ring fencing" can be easily put in place, banning contacts between entities based in such country and intermediaries abroad. If we can borrow an expression from auction theory, a winner's curse materializes: Complete success in the competition is self-destroying.

The perverse nature of competition among off-shore centers determines an unusual result. Just like there are instances in which a monopoly does not necessarily harm consumers, as in the case of network industries where it is benefits for consumers that push the system towards a monopoly,[26] there are instances in which competition may not generate benefits for consumers. Countries that supply money laundering services share a mixed incentive structure. While they obviously gain from competing successfully, they may also desire not to remain the only supplier of those services. Each off-shore center derives benefits from not being the only supplier of criminal financial services. First, a group of suppliers can more easily than a single one try to mingle with the off-shore centers that are in the market for "ordinary" financial services. Second, money laundering schemes are more effective when capitals flow through many jurisdictions: Multiplying the number of transactions and of jurisdictions involved generates several positive effects. By definition, more transactions imply a longer trace to be reconstructed by law enforcement authorities; at the same time, more jurisdictions involved imply more authorities involved and more frictions deriving from the difficulty in coordinating the response.

This observation may shed some light on a possible strategy for the international response, especially when read in conjunction with the above mentioned observation concerning the cautious approach deemed necessary in tampering with reputation. A strategy that focuses the attention on the leading group of suppliers of money laundering services, clearly identified, seems wiser than a strategy that aims at identifying *all* countries involved, without consideration of the relative weight of the countries in the market. On the one hand, this strategy might imply a lower risk of false positives, thus reducing the costs associated with listing, as identified above. At the same time, a strategy that allows to skim off the countries that pose the most serious threat, against which appropriate countermeasures should be taken, presses criminal organizations to redirect their capitals towards less efficient markets, thus increasing the likelihood of detection by law enforcement authorities.

[26] See PORTOLANO, (1999) PARDOLESI and RENDA. (2000)

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